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In the Subject Index, pages 2824–2831, each technical paper is listed under a maximum of three appropriate headings. Note the locating number in boldface type preceding each paper title, and use that number to find the paper in the Chronological Index. The Author Index, pages 2832–2834, lists all authors associated with a given technical paper. The locating numbers are identical to those in the Subject Index. The Chronological Index, pages 2835–2842, also lists all papers by their locating numbers. This listing contains titles, authors and their affiliations, and volume, issue number, and page where the paper appeared. It also gives the AIAA paper number, if any, on which the article was based. The Book Review Index is listed on pages 2842–2843. Comments, Replies, and Errata are listed directly beneath the paper to which they refer. If the paper to which they refer was published before 2011, that paper also will appear in both the Subject and Chronological Indexes. Authors of Comments also are listed in the Author Index.

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J11-234 Enhancement of a Flapping Wing Using Path and Dynamic Topology Optimization. Jung-Sun Choi, Liangyu Zhao, and Gyung-Jin Park, *Hanyang University*, South Korea (ROK); Sunil K. Agrawal, *University of Delaware*; and Raymond K. Kolonay, *U.S. Air Force Research Laboratory* (**49**, 12, p. 2616) Article

J11-235 Near-Wall Formulation of the Partially Averaged Navier–Stokes Turbulence Model. Branislav Basara, *AVL List GmbH*, Austria; Sinisa Krajnovic, *Chalmers University of Technology*, Sweden; Sharath Girimaji, *Texas A&M University*; and Zoran Pavlovic, *AVL List GMBH*, Slovenia (**49**, 12, p. 2627) Article

J11-236 Turbulent Flow Separation Control over a Two-Dimensional Ramp Using Synthetic Jets. Shanying Zhang and Shan Zhong, *University of Manchester*, Great Britain (**49**, 12, p. 2637) Article

J11-237 Energetically Optimal Short-Range Gliding Trajectories for Gliding Animals. David Willis, *University of Massachusetts–Lowell*; Joseph Bahlman, Kenneth Breuer, and Sharon Swartz, *Brown University* (**49**, 12, p. 2650) Article

J11-238 High-Resolution Numerical Method for Supercritical Flows with Large Density Variations. Hiroshi Terashima, *Japan Aerospace Exploration Agency*, Japan; Soshi Kawai, *Stanford University*; and Nobuhiro Yamanishi, *Japan Aerospace Exploration Agency*, Japan (**49**, 12, p. 2658) Article

J11-239 Discretization Error Estimation in Multidisciplinary Simulations. Sirisha Rangavajhala, Venkata S. Sura, Vadiraj K. Hombal, and Sankaran Mahadevan, *Vanderbilt University* (**49**, 12, p. 2673) Article

J11-240 Vortex Shedding and its Nonlinear Acoustic Effect Occurring at a Slit. Xiwen Dai, Xiaodong Jing, and Xiaofeng Sun, *Beijing University of Aeronautics and Astronautics*, China (PRC) (**49**, 12, p. 2684) Article

J11-241 Toward Prediction of Dual-Stream Jet Noise: Database Generation. K. Viswanathan, M. J. Czech, and I. C. Lee, *The Boeing Company* (**49**, 12, p. 2695) Article

J11-242 Aeronautic Conceptual Design Optimization Method Based on High-Order Singular Value Decomposition. S. de Lucas, J. M. Vega, and A. Velazquez, *Universidad Politécnica de Madrid*, Spain (**49**, 12, p. 2713) Article

J11-243 Improved Shepard's Method for the Optimization of Composite Structures. Francois-Xavier Irisarri, *ONERA*, France; Mostafa M. Abdalla and Zafer Gürdal, *Delft University of Technology*, The Netherlands (**49**, 12, p. 2726) Article

J11-244 Computation of Aircraft Stability Derivatives Using an Automatic Differentiation Adjoint Approach. Charles A. Mader, *University of Toronto*, Canada; and Joaquim R. Martins, *University of Michigan* (**49**, 12, p. 2737) Article

J11-245 Generation and Control of Oblique Shocks Using Microjets. Rajan Kumar, Mohd Y. Ali, and Farrukh S. Alvi, *Florida A&M University and Florida State University*; and L. Venkatakrishnan, *Council of Scientific and Industrial Research*, India (**49**, 12, p. 2751) Article

J11-246 Including the Effect of a Future Test and Redesign in Reliability Calculations. Diane Villanueva, Raphael T. Haftka, and Bhavani V. Sankar, *University of Florida* (**49**, 12, p. 2760) Article

J11-247 Surrogate Modeling of High-Fidelity Fracture Simulations for Real-Time Residual Strength Predictions. Ashley D. Spear, Amanda R. Priest, Michael G. Veilleux, and Anthony R. Ingraffea, *Cornell University*; and Jacob D. Hochhalter, *NASA Langley Research Center* (**49**, 12, p. 2770) Article

J11-248 Supersonic Mass-Flux Measurements via Tunable Diode Laser Absorption and Nonuniform Flow Modeling. Leyen S. Chang, Christopher L. Strand, Jay B. Jeffries, and Ronald K. Hanson, *Stanford University*; Glenn S. Diskin, Richard L. Gaffney, and Diego P. Capriotti, *NASA Langley Research Center* (**49**, 12, p. 2783) Article

J11-249 Simulations of Mixing for Normal and Low-Angled Injection into a Supersonic Crossflow. David M. Peterson and Graham V. Candler, *University of Minnesota* (**49**, 12, p. 2792) Article

J11-250 Moving Two-Fluid Systems Using the Volume-of-Fluid Method and Single-Temperature Approximation. A. van Foreest, *DLR, German Aerospace Center*, Germany; M. Dreyer, *University of Bremen*, Germany; and T. Arndt, *EADS Astrium*, Germany (**49**, 12, p. 2805) Technical Note

J11-251 Convergence Criterion for a Far-Field Drag Prediction and Decomposition Method. Martin Gariépy and Jean-Yves Trépanier, *École Polytechnique de Montréal*, Canada; and Christian Masson, *École de Technologie Supérieure*, Canada (**49**, 12, p. 2814) Technical Note

J11-252 Uncertainty Identification of Damage Growth Parameters Using Nonlinear Regression. Alexandra Coppe, Raphael T. Haftka, and Nam H. Kim, *University of Florida* (**49**, 12, p. 2818) Technical Note

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